

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An implant comprising:
a tubular metal stent defining a lumen centered on a central longitudinal axis,
the stent being radially expansible from a radially compact delivery
configuration to a radially larger deployed configuration, and
a plurality of electrically-conductive closed loops comprising struts forming
an apertured wall of the stent ~~implant with an interior volume~~, each of
said loops being formed from strut loop portions providing
electrically-conductive current pathways within which eddy currents
are liable to be induced when subjected to a time-dependent external
magnetic field, each of said loops including a first current pathway
and a second current pathway wherein said first current pathway and
said second current pathway are arranged such that, regardless of the
direction of said external magnetic field, the direction of the eddy
current that would be induced by said field in said second current
pathway is the reverse of the direction of the eddy current that would
simultaneously be induced by said field in said first current pathway,
thereby to prevent flow of eddy currents in each of said loops, thereby
mitigating a Faraday Cage effect and rendering the lumen visible to
MRI.
2. (Currently amended) The implant according to claim 1, wherein each of said
loops has strut loop portions formed as a first lobe and as a second lobe of a figure of eight, further
comprising a cross-over point between said first lobe and said second lobe.

3. (Previously presented) The implant according to claim 2, further comprising an electrically-insulating joint between said two loop portions at said cross-over point.

4. (Original) The implant according to claim 2, wherein each of said loops has additional lobes and additional cross-over points between said additional lobes, with the areas bounded by the lobes being such that, in aggregate, the area bounded by one set of lobes equals the area bounded by a cancelling remainder of the lobes.

5. (Canceled).

6. (Previously presented) The implant according to claim 1, wherein each of said loops wraps around an axis in the form of a spiral with an integral whole number of turns.

7. (Original) The implant as claimed in claim 6, the integral whole number of turns being at least three.

8. (Canceled).

9. (Original) The implant according to claim 6, wherein each of said loops wraps around the axis in a path that spirals around the axis from one end of the implant to the other.

10. (Original) The implant according to claim 6, wherein the pitch of said spiral path is constant.

11. (Original) The implant according to claim 1, wherein loop portions correspond to struts that are joined end-to-end to each other and can deploy in use to form a zig-zag pattern.

12. (Original) The implant according to claim 1, with the plurality of loops arranged mutually axially adjacent, and spaced along the axis.

13. (Original) The implant according to claim 12, wherein adjacent loops are connected to each other by electrically-insulating links.

14. (Original) The implant according to claim 1, wherein each of said loops includes a plurality of electrically-insulating links that connect spaced loop portions of said loop.

15. (Original) The implant according to claim 13, wherein each link is a mechanical coupling with a first cooperating link portion and a second cooperating link portion.

16. (Original) The implant according to claim 15, wherein the cooperating portions can move relative to each other.

17. (Original) The implant according to claim 16, wherein the cooperating portions are constituted as a hook portion and an eye to receive the hook portion.

18. (Original) The implant according to claim 15, including a layer of bonding material between the cooperating link portions.

19. (Original) The implant according to claim 18, wherein the bonding material is ceramic.

20. (Original) The implant according to claim 18, wherein the bonding material is an adhesive composition.

21. (Original) The implant according to claim 15, wherein the mechanical coupling comprises interlocking fingers.

22. (Original) The implant according to claim 15, wherein the mechanical coupling comprises mechanically-engaging surfaces in combination with at least one restraining strap overlying the engaging surfaces.

23. (Original) The implant according to claim 13, wherein each link includes a molded connector piece.

24. (Original) The implant according to claim 13, wherein each link includes a portion that is locally thinned with respect to the thickness of the wall of the implant.

25. (Canceled).

26. (Original) The implant according to claim 1, wherein the implant is made of nickel-titanium shape memory alloy.

27. (Original) The implant according to claim 1, wherein the implant is made of stainless steel.

28-33. (Canceled).

34. (Currently amended) The implant according to claim 1, wherein each closed loop exhibits lobes, with an equal lobe area on opposite sides of the stent interior volume.

35. (Currently amended) An implant ~~tube~~ comprising:
a tubular metal stent defining a lumen centered on a central longitudinal axis, the stent being radially expansible from a radially compact delivery configuration to a radially larger deployed configuration, the stent comprising an electrical conductor, said electrical conductor having a plurality of closed loops comprising struts electrically insulated from each other, each of said closed loops having a periphery of a string of equal area strut lobes that are within said closed loop, and every one of said strut lobes having a counterpart strut lobe located diametrically opposite on the stent, the electrical conductor mitigating a Faraday Cage effect to permit imaging of the lumen by MRI implant tube.

36. (Currently amended) The implant tube according to claim 35, wherein each of said closed loops include loop having an even number of strut lobes.